A Blueprint for Learning
Mathematics
First Grade

The ***Blueprint for Learning*** is a companion document for the Tennessee Curriculum Standards which are located at www.tennessee.gov/education. Although the curriculum adopted by the State Board of Education in its entirety remains on the web for additional reference, this reformatted version makes the curriculum more accessible to classroom teachers.

Key features of the reformatted version are:

- All grades for each content area are provided in the printed manual.
- The skills within each grade are identified as to whether they are introduced, developed, or have been mastered and are now being maintained at that level.
- The skills correlating with the state criterion referenced test (CRT) are also identified for classroom instruction.
- In the Language Arts section, the assessed skills (performance indicators) are identified not only for the state's CRT in grades 3-8 but also for the writing assessment in grades 5 and 8.
- This guide makes the planning of instruction for students with varying abilities easier to accomplish.
- Teachers can plan and work together to improve school wide student achievement through curriculum integration across content areas and grade levels.
- Teachers can identify current grade level skills as well as those needed to prepare students for the next year.

Skills are coded and identified as Introduced (I), Developing (D), State CRT and Writing Assessed (A), and Mastered and Maintained (M).

- Introduced (I) skills are new skills presented at that grade level. Even though a skill is considered introduced at a grade level, some development would also occur.
- Developing (D) skills are skills that have been introduced at a previous grade level. At this stage of development the skills are being refined and expanded.
- Assessed (A) skills are those skills that are correlated to the state performance indicators for the CRT portion of the achievement test (grades 3-8) and the writing assessment (grades 5 and 8). The identified skills are formally assessed through the CRT; however, all skills are informally assessed in the classroom.
    - For the purpose of data reporting, assessed (A) skills are grouped into categories indicating related skills and knowledge. For example, grammar, mechanics, and usage are grouped together under the grammar (G) category. Each state assessed indicator included on the Blueprint carries a legend showing that it is assessed and indicating the category in which it will be reported (e.g., Assessed/Grammar=A/G).
- Mastered and Maintained (M) indicates a skill that has been introduced, developed, and assessed. Even though a skill may be formally assessed, the development and expansion of the skill still continues.

KEY
I = Introduced D = Developing A = State Assessed M = Mastered

REPORTING CATEGORY
N = Number & Operations AT = Algebraic Thinking C = Computation R = Real World Problem Solving
DP = Data Analysis & Probability ME = Measurement G = Geometry GR = Graphs & Graphing

NOTE: "A" Indicates the state curriculum (CRT) assessment only.
All the skills ("I" … "D" … "A" … "M") are addressed in classroom assessment.

MATHEMATICS
First Grade

NUMBER AND OPERATIONS

The student will identify, represent, order, and compare numbers and compute and solve problems.

Key	Reporting Category	
I/D		Count by 2's, 5's, and 10's to 100.
D		Count how many objects are in a set by 1's to 100.
I		Count how many objects are in a set by 2's, 5's, and 10's up to 30.
D		Count forward or backward by one beginning with any number less than 100.
I		Identify the place value of a digit in numbers to 99.
D		Read and write numerals up to 100.
I		Count by 10's from any number using a hundreds chart.
I/D		Use concrete objects to model whole numbers to 99 (e.g., base-ten blocks, sticks, and straws).
I		Identify odd and even whole numbers to 50.
I/D		Match halves and fourths to shaded regions of a single object or figure.
I		Show 1/2 and 1/4 of a set of objects.
I		Match the spoken, written, concrete, and pictorial representations of 1/2 and 1/4.
I/D		Recognize one whole as two halves or four fourths.
I/D		Count the value of a set of coins up to 50 cents.
D		Sequence and order whole numbers less than 100.
I		Represent numbers in flexible ways using a variety of materials (e.g., 23 as 23 ones, 1 ten and 13 ones, and/or 2 tens and 3 ones).
D		Identify and use ordinal numbers up to twelfth.
I		Compare whole numbers through 100 using the appropriate symbol (e.g., <, >, and =).
I		Use a number line or hundreds grid to find one more or one less than any number to 50.
D		Explain whether the solution to a word problem is reasonable.
D		Solve simple story problems involving addition and subtraction with numbers less than 20.
I		Develop story problems that illustrate basic addition and subtraction facts.
D		Use words, actions, pictures, and concrete objects to solve problems.
D		Use pictures or objects to show one more or one less than any number to 99.
I		Estimate the number of objects in a group and explain the reasoning for the estimate.
I		Explain and justify solutions and strategies in problem solving.
I		Add and subtract up to two-digit whole numbers using various strategies (e.g., counting up or back, taking away, doubles plus one, comparison, number relationships, and modeling).
I		Use calculators in problem-solving situations.

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ALGEBRA

The student will sort and classify objects; create, extend, and describe patterns; and represent number sentences with words, objects, and pictures.

D		Sort objects by two of the following attributes: color, size, shape, and kind.
I		Describe how objects in a group are alike and how they are different.
D		Identify and describe growing patterns found in literature, in the environment, in physical arrangements, and in pictures.
D		Translate a repeating pattern from one format to another (e.g., red-blue-blue to snap-clap-clap).
D		Create, describe, and extend concrete, visual, auditory, or number patterns.
I		Identify the unit of a two-part repeating pattern.
D		Show or represent number sentences, involving addition and subtraction and numbers 0-20, with concrete objects.
D		Use mathematical terms and symbols appropriately.
I		Interpret and solve simple open addition sentences, including finding the missing addend.
I		Apply the commutative property of addition.

GEOMETRY

The student will identify, describe, and create basic shapes and describe relative positions and directions.

D		Recognize names, basic properties of, and similarities and differences between simple geometric figures (e.g., number of sides, corners).
D		Predict and describe the results of combining and taking apart two- and three-dimensional geometric figures.
D		Recognize and show terms of relative position and direction in a variety of situations (e.g., over, under, forward, backward, between, right, and left).
I		Create a figure made up of shapes from memory.
D		Identify the position of a whole number on the number line.

MEASUREMENT

The student will apply measurement concepts of time, length, weight, capacity, and temperature.

D		Compare and order objects according to length, capacity, and weight.
D		Recognize the need for standard units of measurement.
D		Demonstrate understanding of the concept of length.
D		Measure and estimate length using a variety of nonstandard units.
I		Use a ruler to measure a line segment to the nearest inch or centimeter.
I		Use scales to weigh an object to nearest pound or kilogram.
D		Recognize that a calendar is a way of measuring time.
I		Mark specified days and dates on a calendar and describe the relationship between days and months.
D		Determine time to the nearest hour and half-hour, using a standard clock.
I		Compare units of time.
D		Use a thermometer to measure temperature and determine the hotter/colder temperature by selecting the higher/lower column of two thermometers.

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DATA ANALYSIS AND PROBABILITY

The student will make simple graphs using concrete objects and pictures and describe events as likely or unlikely.

D		Interpret and make pictographs and bar graphs using concrete objects and pictured objects.
D		Describe events related to students' experiences as likely or unlikely.

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